

Title (en)
RAIL INSPECTION SYSTEM

Title (de)
SCHIENENINSPEKTIONSSYSTEM

Title (fr)
SYSTÈME D'INSPECTION DE RAILS

Publication
EP 3477294 A4 20200212 (EN)

Application
EP 17819825 A 20170609

Priority
• JP 2016127400 A 20160628
• JP 2017021429 W 20170609

Abstract (en)
[origin: EP3477294A1] In a rail inspection system, a positional deviation of a rail can be detected with accuracy. The rail inspection system includes a first sensor unit (21) which is disposed to face a rail (100) for a vehicle, and includes at least one receiver coil (6) and at least one oscillation coil (5A, 5B) which are arranged in an arrangement direction intersecting with a layout direction of the rail (100), an AC voltage source which applies an AC voltage to the oscillation coil (5A, 5B), and a displacement detection unit which detects a displacement (L) between the rail (100) and the first sensor unit (21) based on an induced voltage of the receiver coil (6). The first sensor unit (21) is configured such that, when the displacement is a first displacement (L 1), a first maximum value appears in the induced voltage, and when the displacement is a second displacement (L 2), a second maximum value of which a phase is reversed against the first maximum value appears in the induced voltage.

IPC 8 full level
G01N 27/72 (2006.01); **B61K 9/08** (2006.01); **B61K 9/10** (2006.01); **B61L 23/04** (2006.01)

CPC (source: EP US)
B61K 9/08 (2013.01 - EP US); **B61L 23/042** (2013.01 - EP); **B61L 23/047** (2013.01 - EP); **G01B 7/003** (2013.01 - EP); **G01B 7/31** (2013.01 - EP); **G01B 7/345** (2013.01 - EP); **G01N 27/72** (2013.01 - EP US); **G01R 33/12** (2013.01 - US); **G01N 2291/0234** (2013.01 - US); **G01N 2291/2623** (2013.01 - US)

Citation (search report)
• [X] CN 104006731 A 20140827 - ZHUZHOU TIMES ELECTRONIC TECHNOLOGY CO LTD, et al
• [A] US 2049764 A 19360804 - DRAKE HARCOURT C
• [A] JP S64481 A 19890105 - NIPPON KOKAN KK
• [A] GB 466925 A 19370608 - BRITISH THOMSON HOUSTON CO LTD
• See references of WO 2018003460A1

Cited by
EP3561501A4; US10989694B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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